

**UNIVERSITI TUN HUSSEIN ONN MALAYSIA****FINAL EXAMINATION
SEMESTER II
SESSION 2016/2017**

COURSE NAME : ARCHITECTURE & BUILDING TECHNOLOGY

COURSE CODE : BNB 30103

PROGRAMME CODE : BNB

EXAMINATION DATE : JUNE 2017

DURATION : 2 HOURS 30 MINUTES

INSTRUCTION : ANSWERS ALL QUESTIONS

THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

- Q1** Architecture may be defined as the design activity of the architect, from the macro-level to the micro-level. The practice of the architect, where architecture means offering or rendering professional services in connection with the design and construction of buildings, or built environments.
- (a) List **EIGHT (8)** architectural design values. (8 marks)
 - (b) Explain the purpose of architectural drawing. (2 marks)
 - (c) Describe the purpose of Fire Services Act 1988 (Act 341) in building construction. (2 marks)
 - (d) Differentiate the duties of an architect and a building technologist. (8 marks)
 - (e) Sketch the typical phases of the architectural design process. (5 marks)
- Q2** Procurement is a process of acquiring goods, works and services, covering both acquisition from third parties and from in-house providers.
- (a) Distinguish the types of procurement and provide examples of each type. (9 marks)
 - (b) Classify the procurement system most commonly used in Malaysia. (16 marks)
- Q3**
- (a) RIBA Plan of work is the definitive UK model for the building design and construction process. The first detailed plan of work was published in 1964.
 - (i) According to **Figure Q3(a)(i)**, elaborate the process of RIBA plan of work. (16 marks)
 - (ii) Produce **THREE (3)** reasons why a particular designer / architect is selected in handling a project. (3 marks)
 - (b) Mr. Ar. Ismail is a registered architect in Malaysia, identify the pathway that Mr. Ar. Ismail needs to take to fulfill the requirements set by *Lembaga Arkitek Malaysia (LAM)*. (6 marks)

- Q4** (a) Climate change is a looming threat and the need for renewable energy sources evermore pressing, skyscrapers, office blocks and residential apartments need to be green too. As a professional who practices eco-friendly methods in building construction;
- (i) List down the green building design criteria. (6 marks)

 - (ii) Distinguish the methods of building conservation and building recycling commonly found in Malaysia. (6 marks)

 - (iii) Classify a list of building performance assessment method used in Malaysia. (4 marks)
- (b) Regular inspection and maintenance may enable timely identification of deteriorated building elements. Creating a best-practice operation-and-maintenance (O&M) program increases the efficiency of facility staff, improves building operational practices, and reduces utility costs and plays an important part in increasing property values along with revenue.
- (i) Compose a design for efficient operation and maintenance along with explanations. (8 marks)

 - (ii) Give **ONE (1)** example of a building that equips the phrase ‘environmentally responsive design’ in Malaysia. (1 mark)

-END OF QUESTIONS –

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Figure Q3(a)(i)